

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/004255

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C23C14/04 B01J19/00 C23C16/04 C23C14/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C23C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, COMPENDEX, INSPEC, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 520 716 A (HIROAKI OKAMOTO ET AL) 14 July 1970 (1970-07-14) column 3, line 11 - column 7, line 44; claim 1; figures 1-6,8-10 -----	1-4
X	US 2 676 114 A (BARKLEY DWIGHT W) 20 April 1954 (1954-04-20) column 3, line 9 - column 7, line 73; claims 1-6; figures 1-10 -----	1-4
X	US 4 776 938 A (ABE ET AL) 11 October 1988 (1988-10-11) column 2, line 61 - column 3, line 17; claims 1,5; figures 1,8 ----- -/--	1-3

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

10 March 2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 469 719 A (MARTIN ET AL) 4 September 1984 (1984-09-04) column 7, line 67 - column 11, line 50; claims 1-3,7; figures 3-11 -----	1-4
A	US 6 045 671 A (WU ET AL) 4 April 2000 (2000-04-04) cited in the application the whole document -----	1-4

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/004255

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3520716	A	14-07-1970	NONE	
US 2676114	A	20-04-1954	NONE	
US 4776938	A	11-10-1988	JP 1754620 C JP 4047891 B JP 62082516 A JP 62082517 A KR 9007484 B1 US 4808489 A	23-04-1993 05-08-1992 16-04-1987 16-04-1987 10-10-1990 28-02-1989
US 4469719	A	04-09-1984	NONE	
US 6045671	A	04-04-2000	CA 2254460 A1 US 5985356 A US 5776359 A EP 0917494 A1 JP 2000503753 T WO 9847613 A1 AU 3957795 A CA 2202286 A1 CN 1181055 A ,C EP 1442788 A2 EP 1479435 A1 EP 1481726 A1 EP 0789671 A1 EP 1002572 A2 EP 1002573 A2 EP 0992281 A2 JP 10512840 T JP 2004163418 A NO 971777 A US 2002119243 A1 WO 9611878 A1 US 6410331 B1 US 6346290 B1 US 6420179 B1 US 2003134089 A1 US 2003100119 A1 US 2003219906 A1 US 6419881 B1 US 6440745 B1 US 2004014077 A1 US 6004617 A US 6326090 B1 US 6649413 B1 US 6686205 B1 US 2004154704 A1 US 2001055669 A1 US 2001055775 A1	24-05-2000 16-11-1999 07-07-1998 26-05-1999 28-03-2000 29-10-1998 06-05-1996 25-04-1996 06-05-1998 04-08-2004 24-11-2004 01-12-2004 20-08-1997 24-05-2000 24-05-2000 12-04-2000 08-12-1998 10-06-2004 18-06-1997 29-08-2002 25-04-1996 25-06-2002 12-02-2002 16-07-2002 17-07-2003 29-05-2003 27-11-2003 16-07-2002 27-08-2002 22-01-2004 21-12-1999 04-12-2001 18-11-2003 03-02-2004 12-08-2004 27-12-2001 27-12-2001